Gap between Climate Idealism and Energy Reality

30 May 2025

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Global Stocktake at COP28

28. Further recognizes the need for deep, rapid and sustained reductions in greenhouse gas emissions in line with 1.5 ° C pathways and calls on Parties to contribute to the following global efforts, in a nationally determined manner, taking into account the Paris Agreement and their different national circumstances, pathways and approaches:

(a) Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030;

(b) Accelerating efforts towards the phase-down of unabated coal power;

(c)

(d) Transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science;

(e) Accelerating zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage, particularly in hard-to-abate sectors, and low-carbon hydrogen production;

(f) Reduction of non-carbon-dioxide emissions globally

(g) Accelerating the reduction of emissions from road transport on a range of pathwaysn vehicles;

(h) Phasing out inefficient fossil fuel subsidies

29. Recognizes that transitional fuels can play a role in facilitating the energy transition while ensuring energy security;

Global Stocktake at COP28

39. Reaffirms the nationally determined nature of nationally determined contributions and Article 4, paragraph 4, of the Paris Agreement and encourages Parties to come forward in their next nationally determined contributions with ambitious, economy-wide emission reduction targets, covering all greenhouse gases, sectors and categories and aligned with limiting global warming to 1.5 ° C, as informed by the latest science, in the light of different national circumstances;

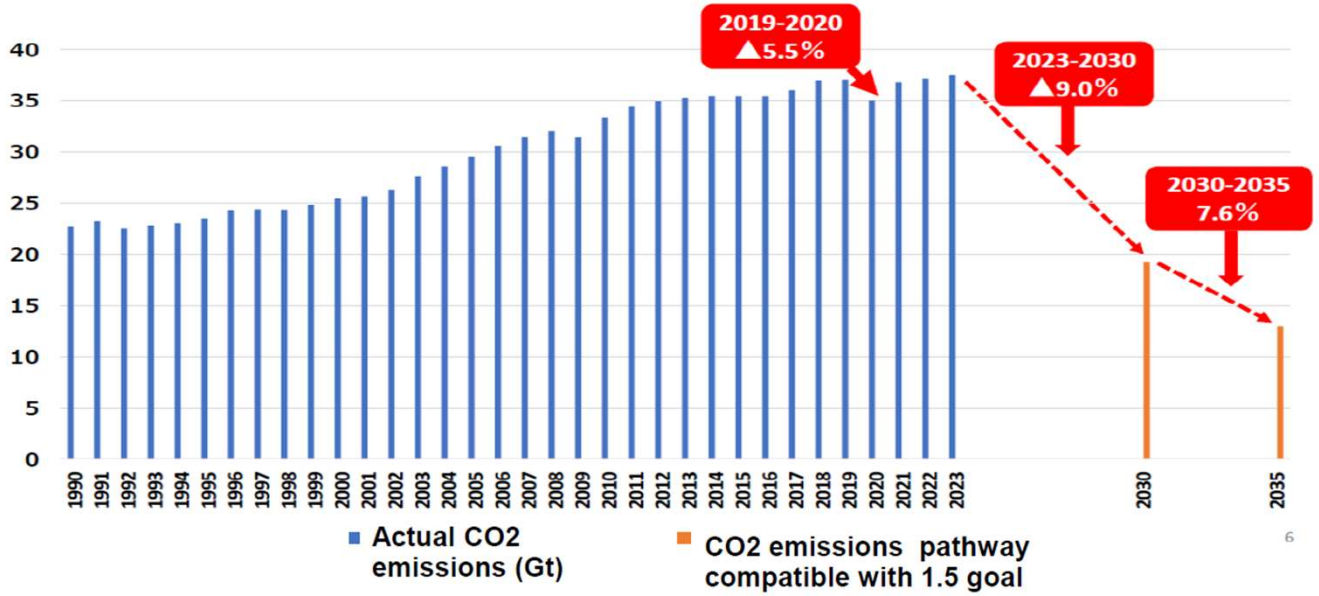
67. Highlights the growing gap between the needs of developing country Parties, in particular those due to the increasing impacts of climate change compounded by difficult macroeconomic circumstances, and the support provided and mobilized for their efforts to implement their nationally determined contributions, highlighting **that such needs are currently estimated at USD 5.8–5.9 trillion for the pre-2030 period;**
68. Also highlights that the adaptation finance needs of developing countries are estimated at USD 215–387 billion annually up until 2030, and that **about USD 4.3 trillion per year needs to be invested in clean energy up until 2030, increasing thereafter to USD 5 trillion per year up until 2050**, to be able to reach net zero emissions by 2050;
69. Notes that scaling up new and additional grant-based, highly concessional finance, and non-debt instruments remains critical to supporting developing countries

Global Challenges: Unrealistic Pathway for 1.5 Compatibility

1.5 degree compatible pathways in the IPCC AR6

		Reductions from 2019 emission levels (%)			
		2030	2035	2040	2050
Limit warming to1.5°C (>50%) with no or limited overshoot	GHG	43 [34-60]	60 [49-77]	69 [58-90]	84 [73-98]
	CO_2	48 [36-69]	65 [50-96]	80 [61-109]	99 [79-119]
Limit warming to 2°C (>67%)	GHG	21 [1-42]	35 [22-55]	46 [34-63]	64 [53-77]
	CO_2	22 [1-44]	37 [21-59]	51 [36-70]	73 [55-90]

Actual CO2 emissions trend and emissions pathway needed for 1.5 degree goal



COP process where mitigation and finance are at loggerheads

- In recent COP negotiations, developed countries have given top priority to the 1.5°C target and carbon neutrality in 2050, and have imposed on themselves a higher level of ambition in their national targets (NDCs) and long-term low carbon strategies (LTS), and demanded similar action from emerging and developing countries
- On the other hand, the biggest incentive for developing countries to participate in the UN climate change negotiations is to extract as much financial and technical assistance as possible from developed countries with historical responsibility for global warming..
- At previous COPs, agreements have been reached between developed and developing countries based on a package balancing mitigation and finance.
- Victory for developed countries at COP 26 (Glasgow) by making the 1.5°C target the de facto standard → Developing countries reeled back at COP 27 (Sharm el-Sheikh), including agreement to establish the Loss and Damage Fund → COP 28 (Dubai) writes ambitious actions to bring the 1.5°C target within reach, while financial needs are also specified.
- COP 29, which was supposed to decide on NCQG is positioned as the most important COP for developing countries since the Paris Agreement ('Finance COP').

Assessment of COP 29

- **COP29 settled on ‘at least 300 billion dollars’, which is significantly below the level demanded by developing countries in terms of funding, and did not include the ambitious message advocated by developed countries in terms of mitigation. The outcome left both developed and developing countries with strong dissatisfaction.**
- **However, the prospect of achieving ‘at least $300 billion’ by 2035 is extremely slim. With the economic situation in developed countries not good, it will be difficult to transfer such a large amount of money to developing countries from a domestic political perspective**
- **At the very least, we cannot expect any climate finance from the US over the next four years of the Trump administration, and it is not thought that Japan and Europe will make up for this. The feasibility of the $300 billion target will further decline, and the situation where developing countries’ accusation against developed countries for low level of support and slow progress non-fulfilment of promises by developed countries will continue.**
- **If the huge transfer of funds to developing countries does not materialize, the ambitious energy transition incorporated in the GST will be ‘a pie in the sky’, and it will be clear to everyone that the already dead 1.5° C target is dead.**

Geopolitics and Global Warming (1)

- **The Ukraine war has led to a rise in energy and food prices, and the top priority is to ensure a stable and low-cost supply of energy. The momentum for preventing global warming has effectively slowed down.**
  - **China, India and other countries are increasing coal production and coal-fired power generation.**
  - **Even in developed countries, the soaring price of energy has become a big problem. → Major defeat of environmental parties in the European Parliament election, gasoline, electricity and gas subsidies in Japa etc**
- **Although the G7 are strongly committed to the 1.5° C target, that is not the case of EMDCs in the BRICS and G20.**
- **The 'fragmented world' caused by the Ukraine war → going against international cooperation to prevent global warming**
- **Western countries, which have accumulated wealth by relying on fossil fuels, now oppose fossil fuel-related investment in developing countries on the grounds of preventing global warming ➔ "double standard" or "eco-colonialism" from the viewpoint of developing countries**

Geopolitics and Global Warming (2)

- **While Western countries are developing environmental fundamentalist policies on global warming both at home and abroad, China is shrewdly taking advantage of the situation.**
  - **Export of cheap solar panels, wind turbines, batteries, and EVs to countries**
  - **Exporting coal-fired power plants to developing countries**
  - **Procurement of cheap Russian oil and gas**
  - **Strengthening ties with oil producing countries amid anti-fossil fuel debate in the West**
  - **”Eco-colonialism” by Western countries could strengthen China’s argument towards ‘multipolar world’**
  - **Expansion of export opportunities for Chinese products through the promotion of clean energy, such as tripling renewable energy, and increased dependence on China for important minerals essential for clean energy.**
- **While rejecting requests from developed countries for contributions to climate finance, China is increasing influence in the Global South through bilateral support (e.g.BRI)**
- **If the Trump administration withdraws from the Paris Agreement again, China's presence as a ‘guardian of multilateral frameworks’ will increase.**

Energy Transition – Climate Idealism and Energy Reality -

- **Technology and economic advantage drove earlier energy transition**

  🡐 🡒 Public policy is now the driver.

- **Previous energy transitions unfolded over the course of a century or more, and they did not wholly displace the incumbent technologies 🡐 🡒 Today's transition is intended to unfold in little more than a quarter-century and not be additive**

- **However, if we are to rapidly raise our level of ambitions, the final consumer must be prepared to bear the increased cost of preventing global warming.**

- **The outcome of European Parliament election last year and US Presidential election shows that the general public does not support policies raising their energy expenses.**

- **Policies that do not have the support of the public and industry are not sustainable politically or economically. This is true for both developed and developing countries.**

Energy Transition – Climate Idealism and Energy Reality -

- **Four major hurdles for energy transition**
  - **Owing largely to the disruptions caused by Ukraine War and Hamas Israel War, energy security has become a top priority again in many countries**
  - **Today's world economy depends on hydrocarbons for over 80% of its energy. Four essential "pillars of modern civilization"- are cement, steel, plastics, and ammonia (for fertilizer), each of which is heavily dependent on the existing energy system.**
  - **Priority on climate action and definition of "energy transition" is different between Global North and Global South**
  - **Supply-demand crunch of critical minerals**
- **At the same time, it is also important to drastically increase financial assistance to developing countries, which will account for the majority of future energy demand and GHG emissions. COP29 in November 2024 revealed a deep rift between developed and developing countries over the New Collective Quantitative Goal.**
- **As the international political and economic situation becomes more chaotic, the outcome of international efforts to prevent global warming will not allow optimism.**